AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method, comprising:

identifying a first ~~header~~ portion of an IP address and a second ~~header~~ portion of the IP address, the IP address contained in a packet header for an information packet;

storing the first ~~header~~ portion and the second ~~header~~ portion;

checking if the first ~~header~~ portion has a first pre-determined relationship to a ~~first~~ plurality of stored patterns associated with the first ~~header~~ portion; ~~and~~

checking if the second ~~header~~ portion has a second pre-determined relationship to a second stored pattern associated with the second ~~header~~ portion; and

generating an indication that the information packet has an invalid IP Address if either the first portion check or the second portion check fails.

2. (Currently Amended) The method of claim 1, wherein a plurality of pre-determined relationships and stored patterns are associated with the first ~~header~~ portion.

3. (Currently Amended) The method of claim 2, wherein the pre-determined relationships associated with the first ~~header~~ portion indicates that the first ~~header~~ portion should not equal any of the stored patterns associated with the first ~~header~~ portion.

4. (Currently Amended) The method of claim 3, wherein the stored patterns associated with the first ~~header~~ portion are stored in a content addressable memory unit.

5. (Currently Amended) The method of claim 4, wherein the first ~~header~~ portion check is performed simultaneously for all of the stored ~~header~~ patterns that are associated with the first ~~header~~ portion by providing the first ~~header~~ portion to the content addressable memory unit.

6. (Cancelled).

7. (Currently Amended) The method of claim 1, wherein the ~~packet header~~ IP address is associated with at least one of~~: (i) an Internet protocol network, (ii)~~ an asynchronous transfer mode network~~, and (iii)~~ or a frame relay network.

8. (Currently Amended) The method of claim 1, wherein an action identifier is stored along with the first ~~header~~ portion and the second ~~header~~ portion.

9. (Original) The method of claim 1, wherein the action identifier indicates whether the associated packet should be processed or dropped.

10. (Currently Amended) The method of claim 1, wherein a memory unit stores an indication of the first pre-determined relationship along with the first stored pattern for the first ~~header~~ portion.

11. (Currently Amended) The method of claim 10, wherein the memory unit stores a plurality of pre-determined relationships and associated stored patterns for the first ~~header~~ portion.

12. (Currently Amended) The method of claim 11, wherein the memory unit further stores an indication of the number of pre-determined relationships and stored patterns that are associated with the first ~~header~~ portion.

13. (Currently Amended) An article, comprising:

a storage medium having stored thereon instructions that when executed by a machine result in the following:

identifying a first portion of an IP address and a second portion of the IP address, the IP address contained in a packet header for an information packet;

storing the first portion and the second portion;

checking if the first portion has a first pre-determined relationship to a plurality of stored patterns associated with the first portion; and

checking if the second portion has a second pre-determined relationship to a second stored pattern associated with the second portion; and

generating an indication that the information packet has an invalid IP Address if either the first portion check or the second portion check fails.

~~identifying a first header portion and a second header portion of a packet header for an information packet,~~

~~storing the first header portion and the second header portion,~~

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~~checking if the first header portion has a first pre-determined relationship to a first stored pattern associated with the first header portion, and~~

~~checking if the second header portion has a second pre-determined relationship to a second stored pattern associated with the second header portion.~~

14. (Currently Amended) The article of claim 13, wherein a plurality of pre-determined relationships and stored patterns are associated with the first ~~header~~ portion.

15. (Currently Amended) The article of claim 14, wherein the pre-determined relationships associated with the first ~~header~~ portion indicate that the first ~~header~~ portion should not equal any of the stored patterns associated with the first ~~header~~ portion.

16. (Currently Amended) The article of claim 15, wherein the stored patterns associated with the first ~~header~~ portion are stored in a content addressable memory unit.

17. (Currently Amended) The article of claim 16, wherein the first ~~header~~ portion check is performed simultaneously for all of the stored ~~header~~ patterns that are associated with the first ~~header~~ portion by providing the first ~~header~~ portion to the content addressable memory unit.

18. (Currently Amended) An apparatus, comprising:

a first memory unit to store a first ~~header~~ portion <u>of an IP address</u> and a second ~~header~~ portion <u>an IP address, the IP address contained in</u>~~of~~ a packet header for an information packet; and

a second memory unit to store (i) a first pre-determined relationship and associated first stored pattern for the first ~~header~~ portion and (ii) a second pre-determined relationship and associated second stored pattern for the second ~~header~~ portion.

19. (Original) The apparatus of claim 18, wherein the first and second memory units comprise a single device.

20. (Currently Amended) The apparatus of claim 18, wherein a plurality of stored patterns are associated with the first ~~header~~ portion.

21. (Currently Amended) The apparatus of claim 20, wherein the first ~~header~~ portion should not equal any of the stored patterns associated with the first ~~header~~ portion.

22. (Currently Amended) The apparatus of claim 21, wherein stored patterns associated with the first ~~header~~ portion are stored in a content addressable memory unit.

23. (Currently Amended) A system, comprising:

a backplane;

a first line card connected to the backplane; and

a second line card connected to the backplane, the second line card having a network processor that includes:

a first memory unit to store a first portion of an IP address and a second portion an IP address, the IP address contained in a packet header for an information packet; and

a second memory unit to store (i) a first pre-determined relationship and associated first stored pattern for the first portion and (ii) a second pre-determined relationship and associated second stored pattern for the second portion. ~~a first memory unit to store a first header portion and a second header portion of a packet header for an information packet, and~~

> ~~a second memory unit to store (i) a first pre-determined relationship and associated first stored pattern for the first header portion and (ii) a second pre-determined relationship and associated second stored pattern for the second header portion.~~

24. (Original) The system of claim 23, wherein the first and second memory units comprise a single device.

25. (Currently Amended) The system of claim 23, wherein a plurality of stored patterns are associated with the first ~~header~~ portion.

26. (Currently Amended) The system of claim 25, wherein the first ~~header~~ portion should not equal any of the stored patterns associated with the first header portion.

27. (Currently Amended) The system of claim 26, wherein stored patterns associated with the first ~~header~~ portion are stored in a content addressable memory unit.